SECTION 4

Splitting the Tractor

SPLITTING THE TRACTOR

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4A.1 SPECIFICATION

Coupler Rear Drive end float	:	0.014 to 0.1 inch (0.38 to 2.54 mm).

Torque Values

Front support Casting to Engine	:	173.32 lbf. ft. (235 Nm).
Engine to Transmission Case	:	50 – 57 lbf. ft. (68 – 77 Nm).
Transmission Case to Centre Housing	:	70 – 80 lbf. ft. (95 – 108 Nm).

Special Tool

SER / 054	:	Tractor Spliting stand

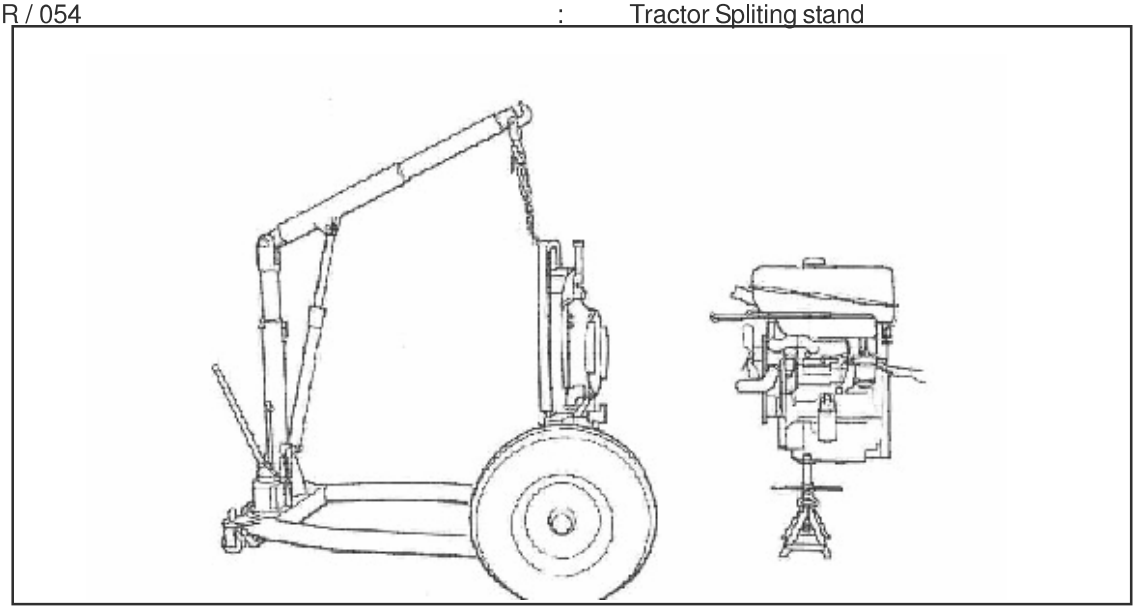

Fig 1

4A.2 SPLITTING THE TRACTOR BETWEEN THE FRONT AXLE AND ENGINE

Splitting Procedure

Dis-assembly

WARNING : Take care to keep the front axle assembly level once it has been withdrawn from the engine, otherwise it could lead to improper balance and cause injury.

1. If the tractor is four-wheel drive, first disconnect the drive shaft at the front axle end. To turn the drive shaft to gain access to the coupling split pin it may be necessary to move the tractor under power. The shaft cannot be turned without the engine running. Remove the drive shaft assembly.
2. Apply the tractor parking brake, remove the front weights (if fitted), and fit chocks to hold the rear wheels.
3. Disconnect the battery terminal.
4. Disconnect the air cleaner hoses.
5. Disconnect the head light wiring connections in grill assembly and remove the bonnet from the assembly.
6. Drain the cooling system via the drain plugs on the radiator and cylinder block.
7. Disconnect the radiator top and bottom hoses.
8. Disconnect the radiator support bar.
9. Disconnect the hydrostatic steering cylinder hoses from the cylinders.
10. Disconnect the remote greasing lines.
11. Fit hard wood wedges between the front axle casting and centre beam on both sides, to prevent the beam from pivoting.

11. Support the front axle assembly using crane and chains.
12. Support the tractor under the engine sump using suitable stand.
13. Remove front support casting securing bolts and nuts.
14. Carefully roll the two front wheels, front axle and crane forwards away from the engine.

Re-assembly

For reassembling, follow the reverse procedure above,

1. Reconnect the hydrostatic steering cylinder hoses to the steering cylinder and bleed air from the system. If necessary, top up the oil in reservoir.
2. Tighten all bolts and nuts as per the torque value.

Splitting the tractor between the engine and transmission

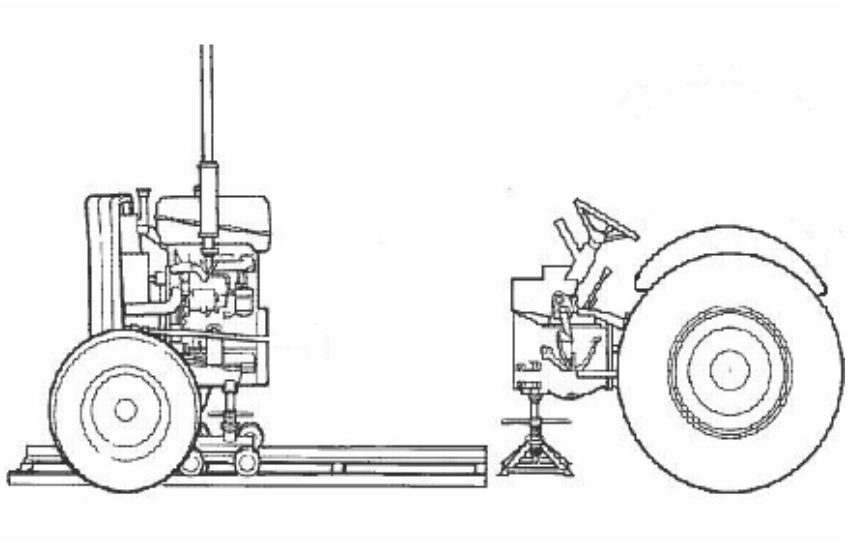

Fig 2

4A.3 SPLITTING THE TRACTOR BETWEEN THE ENGINE AND TRANSMISSION

Splitting Procedure

Special Tool

SER / 054 - Tractor spliting stand

Dis-assembly

1. If the tractor is four-wheel drive, first disconnect the drive shaft at the front axle end. To turn the drive shaft to gain access to the coupling split pin it may be necessary to move the tractor under power. The shaft cannot be turned without the engine running. Remove the drive shaft assembly
2. Apply the tractor parking brake and fit wheel chocks to hold the rear wheels.
3. Disconnect the battery terminals and remove the battery earth cable and battery.
4. Disconnect the head light wiring connections in grille assembly and remove the bonnet / hood from the tractor.
5. Disconnect the air cleaner hose.
6. Disconnect the hydrostatic steering hoses and pipe joints.
7. Close the fuel shut off
8. Fit a suitable wooden wedge between the engine cylinder head cover and fuel tank. Take care not to damage the fuel tank.
9. Disconnect the fuel tank rear support bolts.
10. Disconnect theengine fuel pump shut off control linkage.
11. Remove the two bolts securing the battery platform to the rear of the Engine.
12. Disconnect the front wiring harness.
13. Disconnect tractormeter drive cable from the rear of the engine.
14. Disconnect the throttle control linkages.
15. Loosen the Starter motor bolts and remove the starter motor with gasket.
17. Place hard wooden wedge between the Front support casting and centre beam to avoid pivoting.

16. Using the tractor spliting stand SER / 054 , support the tractor under the transmission with the fixed stand, and under the engine sump with the rails and trolley.

17. Remove all engine mounting bolts.

18. Roll the engine and front axle assembly forward with engine mounting gasket.

Re-assembly

For reassembling, follow the reverse procedure above,

1. Align the engine with the transmission case and turn the flywheel and, at the same time, roll the engine and front axle towards the transmission making sure that primary and secondary splines in main drive housing engages with the splines of primary and secondary clutch plates. Continue pushing and turning the flywheel until the engine and transmission flanges meet.

CAUTION : Do not force, fit or tighten any of the bolts until the two flanges meet,since serious damages may occur to the transmission and clutch.

2. Use new gaskets while re-assembling.

3. Refit all engine mounting bolts and tighten to a torque of 55 lbf. ft. (75 Nm)

4. For completing the rest of the tractor , follow the reverse procedure given above and

5. Reconnect the hydrostatic steering and pipe lines and bleed the air from the system and if necessary, top up the oil in reservoir.

6. Adjust the clutch play.

4A.4 SPLITTING THE TRACTOR BETWEEN THE TRANSMISSION AND REAR TRANSMISSION.

Splitting Procedure

Special Tool

SER / 054 - Tractor spliting stand

Disassembly

1. Fit wheel chocks to hold the rear wheels.

2. Drain the transmission oil via the drain plugs on the transmission case and centre housing.

3. Disconnect the battery terminals.

4. Disconnect the foot throttle linkages and then remove the step left - hand and right - hand step assemblies.

5. Disconnect the brake rods.

Splitting the tractor in between transmission and centre housing

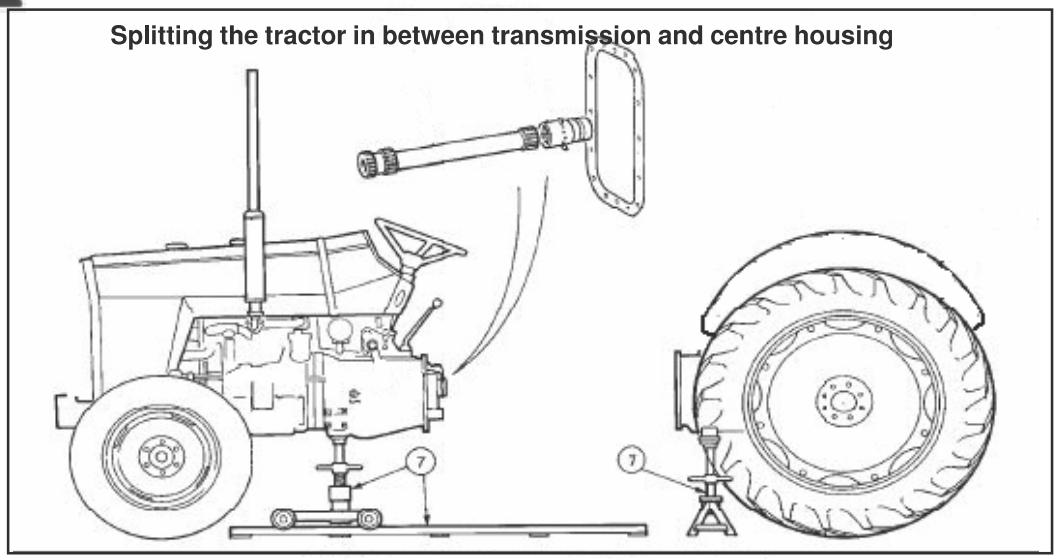

Fig 3

6. Disconnect the rear harness connections.

7. Using the SER / 054 tractor spliting stand, support the tractor under the transmission with the trolley on rails and with fixed stand under the centre housing.

8. Remove all bolts connecting the transmission and centre housing and remove the drive shaft.
9. Roll the engine and transmission assembly forward.
10. If necessary remove therear drive shaft and shaer / fuse coupler.
11. Discard the gasket between the transmission case and centre housing.

Re-assembly

For reassembling, follow the reverse procedure given above, and

1. Clean both flanges of the transmission and centre housing to remove traces of oil / grease.
2. Use new gaskets while re-assembling.
3. Take carethat the rear drive shaft and shaer coupler are correctly located and installed.
4. Ensure that the Hydraulic pump coupling is located properly.
5. Fit two guide pins approximately 100 mm long into the top, left and right sides of the centre housing flange
6. Fit the shear coupler on to the pinion with the holes around the tube towards the front.
7. Roll the engine and transmission assembly into engagement with the centre housing, ensuring alignment of the shear coupler splines onto the rear pinion splines and hydraulic pump coupling splines onto the transmission front PTO drive shaft.

Note : *If necessary, remove the side cover for easy alignment of shear coupler with pinion.*

8. Using a suitable lever, turn the flywheel and align the transmission with the corresponding holes in the centre housing. Continue turning until the two flanges meet.

CAUTION : Do not force, fit or tighten any of the bolts until the two flanges meet, since serious damages may occur to the transmission and PTO.

9. Refit all mounting bolts and tighten to a torque of 83 lbs. ft. (112 Nm)
10. Refill the transmission oil to the required level.
11. Re-connect the brake rods and adjust the brake.